

CLAIMS

1. A method for locating a discrepancy in mapping information that maps an identifier to a particular resource, the method comprising acts of:
 - determining a first mapping;
 - 5 determining a second mapping; and
 - comparing the first mapping to the second mapping and identifying at least one discrepancy between the first and second mapping.
2. The method of claim 1, wherein the act of determining a second mapping
10 comprises acts of querying a nameserver and receiving a response from the nameserver, the response containing the second mapping.
3. The method of claim 1, wherein the act of determining a first mapping comprises an act of obtaining an authoritative mapping from an authoritative source.
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4. The method of claim 3, wherein the authoritative source is at least one of:
 - an authoritative nameserver; and
 - a database storing a plurality of authoritative mappings.
- 20 5. The method of claim 1, further comprising an act of reporting the at least one discrepancy to a user.
6. The method of claim 1, wherein the first mapping is a first namespace mapping that maps a first name to a first resource and the second mapping is a second namespace
25 mapping that maps a second name to a second resource.
7. The method of claim 6, wherein the first namespace mapping is stored on an authoritative nameserver and the act of determining a first mapping comprises an act of obtaining the first mapping from the authoritative nameserver.

8. The method of claim 6, wherein the act of determining a second mapping comprises acts of querying a nameserver and receiving a response from the nameserver, the response containing the second mapping.

5 9. The method of claim 2, further comprising an act of compiling a list of nameservers to be queried.

10 10. The method of claim 8, wherein the act of querying a nameserver comprises an act of requesting at least one namespace mapping record from the nameserver.

11. The method of claim 9, wherein the act of compiling a list of at least one nameserver comprises acts of:
sending a namespace mapping resolution query to a plurality of network nodes;
waiting for one or more responses from the plurality of network nodes; and
15 determining whether a network node in the plurality of network nodes is a nameserver.

12. The method of claim 11, wherein the act of determining comprises an act of determining whether the network node in the plurality of network nodes is a nameserver
20 based on a format of one or more responses received from the network node.

13. The method of claim 11, wherein the act of determining comprises an act of determining that a network node in the plurality of nodes is not a nameserver if the network node does not respond to the namespace mapping resolution query.
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14. The method of claim 9, wherein the act of compiling a list of at least one nameserver comprises an act of:
listening for a request from a non-authoritative nameserver to an authoritative nameserver; and
30 when the request is detected, adding the non-authoritative nameserver to a list of nameservers.

15. The method of claim 14, wherein the request is a resolve request.
16. A method for discovering nameservers, comprising acts of:
sending a namespace mapping resolution query to a plurality of network nodes;
5 waiting for one or more responses from at least one of the network nodes; and
determining whether a network node in the plurality of network nodes is a
nameserver.
17. The method of claim 16, wherein the act of determining comprises an act of
10 determining whether a network node in the plurality of network nodes is a nameserver
based on a format of the response from the network node.
18. The method of claim 16, wherein the act of determining comprises an act of
determining that a network node in the plurality of nodes is not a nameserver if the
15 network node does not respond to the namespace mapping resolution query.
19. A method for discovering nameservers, comprising acts of:
listening for a request from a non-authoritative nameserver to an authoritative
nameserver; and
20 when the request is detected, adding the non-authoritative nameserver to a list of
nameservers.
20. The method of claim 19, wherein the request is a resolve request.